

ABSTRACT

A reflective light imaging system for use in high-throughput screening of samples disposed in multiple-well plates. The system can include a set of mirrors and lenses. The first mirror has a central aperture through which light from the object passes. The first mirror has a concave reflective surface that faces the image plane. The next element is a second mirror with a convex reflective surface. The system can include an aberration corrective system positioned between the second mirror and the image plane, and an optical sensor near the image plane. Light from an object passes through the central aperture of the first mirror and is reflected off the convex surface of the second mirror. The light then strikes the reflective surface of the first mirror. The light from the first mirror is then collected by the aberration correction system and transmitted toward the image plane.